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May 28, 2025

The Honorable Marc C. LeMieux, A.J.S.C.
Monmouth County Courthouse
71 Monument Park
Freehold, New Jersey 07728

Re: State of New Jersey v. Paul Caneiro
Indictment No. 19-02-0283; Case No. 18004915
Motion To Preclude Ballistics Evidence
Returnable: June 3, 2025

Dear Judge LeMieux:

Please accept the following letter in response to the above-captioned motion, by way of which the defendant seeks an order from this Court precluding the State from admitting at his upcoming trial highly incriminating ballistics evidence.

Ballistics evidence is no mystery. "The science of firearm and toolmark identification is well-established, spanning over 100 years in the United States." State v. Ghigliotty, 463 N.J. Super. 355 (App. Div. 2020); see also State v. McGuire, 419 N.J. Super. 88, 130-31 (App. Div.), certif. denied, 208 N.J. 335 (2011) ("Testimony by tool mark experts has been admitted in New Jersey courts without objection" because "tool mark analysis is not a newcomer to the courtroom"). Within that century there has developed a "foundation of knowledge about firearm and toolmark identification that has

been organized over time and is described in forensic textbooks, scientific literature, reference material, training manuals, and peer reviewed scientific journals." Ghigliotty, 463 N.J. Super. at 362. "Neither the underlying principles nor the methodology" of ballistics "has changed significantly during the last 100 years." Ibid.

The "most widely accepted method used in conducting toolmark examination is a side-by-side, microscopic comparison of the markings on a questioned material item to known source marks imparted by a tool." Ibid. Specifically for ballistics, "[a] firearms toolmark examiner uses a comparison microscope[1] to compare toolmarks on an evidence bullet with toolmarks present on a test fired bullet from the suspected weapon that is linked to either the crime scene or a suspect." Id. at 362-63. "Class characteristics," i.e., "firearm features 'shared by many items of the same type' and determined by the manufacturer that 'help narrow the population of potential firearm source,'" "are evaluated first, followed by individual characteristics," i.e., "'fine microscopic markings and textures' that 'are random in nature, usually arising from the tool working surface incidental to manufacture, but can also be the result of use, wear, and possible care and/or abuse of the tool,' and that form striated or impressed toolmarks on ammunition." Id. at 361-63 (citations omitted).[2]

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[1] "The design of the comparison microscope, the primary tool used by firearms toolmark examiners, has not changed in approximately eighty years." Ghigliotty, 463 N.J. Super. at 363.

[2] The Ghigliotty Court's "primer" on ballistics evidence is derived from the very same four sources used by the defendant for his "Primer," see Db11-15, though without defendant's barely hidden biases: Robert M. Thompson, Firearm Identification in the Forensic Science Laboratory (National District

The consistency of ballistics evidence has led to its consistent admissibility in New Jersey courtrooms. See Ghigliotty, 463 N.J. Super. at 375 (finding itself so unconcerned with "the general acceptance of the firearm toolmark identification," that a Frye hearing was not required); see, e.g., State v. Venable, 2025 N.J. Super. Unpub. LEXIS 385 (App. Div. 2025); State v. Morgan, 2025 N.J. Super. Unpub. LEXIS 548 (App. Div. 2025);[3] see also, e.g., United States v. Monteiro, 407 F.Supp.2d 351, 364 (D.Mass 2006) ("For decades, both before and after the Supreme Court's seminal decisions in Daubert and Kumho Tire, admission of … firearm identification testimony …

Attorneys Association, Alexandria, VA), 2010; National Research Council, Committee to Assess the Feasibility, Accuracy, and Technical Capability of a National Ballistics Database, Ballistic Imaging (Nat'l Academies Press, Washington, D.C.), 2008; National Research Council, Committee on Identifying the Needs of the Forensic Science Community, Strengthening Forensic Science in the United States: A Path Forward (Nat'l Academies Press, Washington, D.C.) 2009; and President's Council of Advisors on Science and Technology, Report to the President, Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods (Executive Office of the President), September 2016. Ghigliotty, 463 N.J. Super. at 360 n.2. As to the last, often referred to as the PCAST Report, a response to that report appeared in the Winter 2022 edition of the Baylor Law Review. See Colonel (Ret.) Jim Agar, The Admissibility of Firearms and Tool Marks Expert Testimony in the Shadow of PCAST, Baylor L. Rev. 93 (2022). While this article is available on the Baylor Law Review's website, see https://law.baylor.edu/why-baylor-law/academics/legal-writing/baylor-law-review/past-issues, the State has appended this to its brief for the convenience and edification of the Court.

[3] In accordance with R. 1:36-3, the State has appended these and all unpublished opinions to this brief. The State cites to this unpublished opinion not for precedential purposes, but for "evidential" purposes, consistent with R. 1:36-3 and in accordance with State v. Robertson, 438 N.J. Super. 47, 60 n. 8 (App. Div.), rev'd on o.g., 228 N.J. 138 (2017).

has been semi-automatic; indeed, no federal court has yet deemed it inadmissible").

During the most recent of its 100 years of admissibility, ballistics and toolmark analysis has withstood its critics, including from some of the very sources relied upon by the defendant. In McGuire, 419 N.J. Super. at 131-32, our Appellate Division specifically addressed the National Research Council, Committee on Identifying the Needs of the Forensic Science Community's 2009 Strengthening Forensic Science in the United States: A Path Forward, (NAS report) finding:

> The NAS report was issued in 2009 … It contained some criticism of tool mark analysis, including lack of information about variances among individual tools, lack of a clearly defined process, and a limited scientific basis of knowledge … But the NAS report does not label the discipline "junk science." It acknowledges that tool mark analysis can be helpful in identifying a class of tools, or even a particular tool, that could have left distinctive marks on an object. … The report concludes that development of a precisely specified and scientifically justified testing protocol should be the goal of tool mark analysis.
>
> Since the NAS report was issued, at least two courts have refused to exclude forensic evidence based on criticism contained in that report. … As noted in those cases, the purpose of the NAS report is to highlight deficiencies in a forensic field and to propose improvements to existing protocols, not to recommend against admission of evidence.

(emphasis added); see also United States v. Johnson, 2019 U.S. Dist. LEXIS 39590 at *38 (S.D.N.Y 2019) (following publication of the sources relied upon by Caneiro, "courts have carefully reexamined the reliability of toolmark identification evidence" and "[a]ll" have "admitted expert testimony

concerning toolmark identification, rejecting arguments that the "2008-2016 scientific reports rendered such evidence inadmissible," with some courts "reason[ing] that the weaknesses in toolmark identification can be effectively explored on cross-examination").

Similarly, despite its criticism of ballistics, the "PCAST Report does not make any recommendations regarding the use of such evidence at trial: '[w]hether firearms analysis should be deemed admissible based on current evidence is a decision that belongs to the courts.'" United States v. Boone, 2024 U.S. Dist. LEXIS 89710 (S.D.N.Y. 2024). Importantly, post PCAST Report studies, see Jaimie A. Smith, Beretta Barrell Fired Bullet Validation Study, 66 J. Forensic Scis. 547 (2020) and Keith L. Monson, et al., Accuracy of Comparison Decisions by Forensic Firearms Examiners, 68 J. Forensic Scis. 86, 87 (2022), have demonstrated that the error rates for ballistics experts is low, from 0.08% to 0.933%. Boone, 2024 U.S. Dist. LEXIS 89710 at * 20-21; see also Ghigliotty, 463 N.J. Super. at 365 (noting that as of 2010, "'reviews of proficiency testing data show that the error rate for misidentifications for firearm evidence is approximately 1.0%").

New Jersey's switch from Frye to Daubert as part of our N.J.R.E. 702 analysis was explicitly not intended to disturb the acceptance and admissibility of ballistics evidence. When highlighting those "categories of experts who testify frequently in criminal cases," who "use the same methodologies repetitively," and the admissibility of whose testimony cannot be challenged absent "new scientific research" "call[ing] into question the wisdom of" prior "precedent," our Supreme Court first listed "ballistics experts." State v. Olenowski (II), 255 N.J. 529, 581-83 (2023); see also State v. Olenowski (I),

253 N.J. 133, 154 (2023). Defense counsel here has nothing new to offer and, thus, has abandoned a previously-rejected "argu[ment] that … firearm toolmark identification testimony [is] not scientifically reliable under the Daubert standard." Venable, 2025 N.J. Super. Unpub. LEXIS 385 at *7-8, 17. To avoid this inescapable fact, defense counsel has now switched tactics, attacking the specific ballistics testimony intended to be offered by the State here, a so-called "as applied" challenge.

What defendant here dresses up in the "as applied" language he appears to borrow from constitutional law is a wholly meritless, two-pronged attack. First, defendant alleges that the discovery provided by the State in connection with its ballistics expert is insufficient, violating R. 3:13-3 and, therefore, mandating suppression. No such violation of the Rule can be found here. Second, defendant recharacterizes a well-trod, and routinely rejected general challenge to the subjectivity ("cognitive bias") of ballistics testimony as an issue solely faced by the State's expert in this case. This recharacterization can neither erase the consistent rejection of this claim, nor make it a "new" claim this Court should revisit here. The proper place for this line of attack is before the jury on cross-examination and not before this Court pretrial.

Consistent with its discovery obligations, the State provided the defendant with ballistic reports, the notes and photographs associated with these reports, and relevant standard operating procedures. See, e.g., DaC, D, E, F, H, I, G, Q. These documents contain the expert's ultimate conclusions, e.g., identification, eliminated, inconclusive, along with descriptions (and photographs) of the "areas of agreement" between the samples, e.g., "several land impressions," and "FP Imp, BR marks (primer), chamber & extractor

marks."[4] Ibid.; see also Ghigliotty, 463 N.J. Super. at 364; Johnson, 2019 U.S. Dist. LEXIS 39590 at * 46-47 (noting the importance photographing identified findings as permitting a qualified examiner to see what the expert was looking at and relying upon, thus allowing for independent review). These reports also contain confirmation of an independent review.

Defendant nonetheless claims this is not enough to satisfy R. 3:13-3(b)(1), which he claims also requires the State to furnish "a summary of the grounds" for the ballistic expert's opinions: "The discovery here fails to explain the facts the examiner relied on to reach his opinion and does not give an explanation for that opinion." Db16. Defendant had unfortunately both wholly ignored the content of the reports and notes provided and misread the Rule upon which he relies.

Two provisions of R. 3:13-3(b)(1), governing items that must be disclosed by the State in discovery, apply here:

> (C) results or reports of … scientific tests or experiments made in connection with the matter …

[4] The inclusion of these descriptions and photographs of the markings upon which the expert relied in order to come to his conclusions is also what makes this report not the "net opinion" defendant claims. The net opinion rule "forbids the admission into evidence of an expert's conclusions that are not supported by factual evidence or other data." State v. Townsend, 186 N.J. 473, 494 (2006); State v. Burney, 255 N.J. 1, 23 (2023). "Simply put, the net opinion rules 'requires an expert to give the why and wherefore of his or her opinion, rather than a mere conclusion.'" Ibid. (quoting Rosenberg v. Tavorath, 352 N.J. Super. 385, 401 (App. Div. 2002)). The reports and notes provided here document the why and wherefores of the ballistic expert's admissible, not "net," opinions.

> (I) names and addresses of each person whom the prosecutor expects to call to trial as an expert witness, the expert's qualification, the subject matter on which the expert is expected to testify, a copy of the report, if any, of such expert witness, or if no report is prepared, a statement of the facts and opinions to which the expert is expected to testify and a summary of the grounds for each opinion.

R. 3:13-3(b)(1)(C), (I) (emphasis added). By providing the ballistic expert's reports and notes, the State complied with the above.

To get to his claim of non-compliance and, therefore, request for suppression, defendant simply misreads the plain language of the Rule. Defendant's reading of the Rule makes the provision of "a summary of the grounds for each opinion" a requirement applicable to all experts, even those who furnish a report, and not just to experts that do not prepare a report and instead provide a summary. That is simply not how the Rule is to be read.

"[T]he doctrine of the last antecedent" is "a principle of statutory[5] construction that holds that … a qualifying phrase within a statute refers to the last antecedent phrase." State v. Gelman, 195 N.J. 475, 484 (2008); see, e.g. State in the Interest of S.Z., 177 N.J. Super. 32, (App. Div. 1981) (applying this doctrine, which requires that referential and qualifying phrases refer solely to the last antecedent, to N.J.S.A. 2C:17-3(a)(1), such that the phrase "in the employment of fire, explosives or other dangerous means …" in the sentence, "[d]amages tangible property of another purpose, recklessly, or negligently in the employment of fire, explosives, or other dangerous means" only applies to negligent conduct).

[5] The canons of statutory construction equally apply to the Rules of Court. See State v. Tier, 228 N.J. 555, 564 (2017).

Similarly here, the phrase "and a summary of the grounds for each opinion" cannot be read to apply to all of the experts referenced in the Rule. It is not the last in a list of requirements for all experts. This phrase can only apply to the "last antecedent," i.e., to experts who prepare "no report" and instead prepare "a statement of the facts and opinions to which the expert is expected to testify." R. 3:13-3(b)(1)(I). The "summary of the grounds for each opinion" is, therefore, simply a part of the "statement of the facts and opinions" to be prepared for experts that do not prepare a report. Ibid. Because the ballistics expert here prepared a report, which unquestionably was furnished by the State, there can be no requirement that this report also comply with requirements not applicable to summaries under the Rule.

Even if this Court were to find some deficiency in what has been provided in discovery, suppression is not the remedy. "[T]he sanction of preclusion is a drastic remedy and should be applied only after other alternatives are fully explored" and only upon a finding of an intent to mislead by the State, an element of surprise for the defendant, and prejudice. State v. Washington, 453 N.J. Super. 164, 190, 191 (App. Div.), appeal denied, 235 N.J. 386 (2018). "Prejudice in this context refers not to the impact of the testimony itself, but the aggrieved party's inability to contest the testimony." Ibid. (quoting State v. Heisler, 422 N.J. Super. 399, 415 (App. Div. 2011). This motion, see Db17-18 (providing a list of cross-examination questions) and defendant's procurement of an expert alone bely any claim of prejudice.

Defendant's expert – and his opinion as to the subjectivity (or cognitive bias) of ballistic testimony – leads directly to defendant's second, but also meritless, claim. The subjectivity of the State's ballistics expert is not

unknown because subjectivity in ballistics analysis is not unique to this expert. As early as 1992, the Association of Firearm and Toolmark Examiners (AFTE), "an international body of practitioners" and "the largest professional organization in the field" and "publish[er]" of "a professional journal concerning firearm and toolmark science," "recognize[d] that identification is 'subjective in nature.'" Ghigliotty, 463 N.J. Super. at 362-64 (citations omitted); Boone, 2024 U.S. Dist. LEXIS 89710 at *23. The AFTE addressed subjectivity by employing set standards and "four potential conclusions for examiners to make following an investigation: (1) identification; (2) inconclusive; (3) elimination; and (4) unsuitable, meaning that the evidence was not suited for examination." Ghigliotty, 463 N.J. Super. at 364. These conclusions were utilized by the State's expert. DaC, D, E, F, H, I, G, Q.

These subjectivity criticisms, the same or similar criticisms voiced by the defendant's expert, have not led courts to exclude ballistics testimony. See Boone, 2024 U.S. Dist. LEXIS 89710 at *23 ("The Court shares some of these concerns … however, this Court believes that the methodology is governed by controlling standards sufficient to render it reliable); Ghigliotty, 463 N.J. Super. at 365. "[A]ll technical fields which require the testimony of expert witnesses engender some degree of subjectivity requiring the expert to employ his or her individual judgment, which is based on specialized training, education, and relevant work experience." Boone, 2024 U.S. Dist. LEXIS 89710 at *24 (citations omitted). "[T]he weaknesses in the methodology of toolmark identification analysis are readily apparent, have been discussed at length in the scientific literature, and can be addressed effectively on cross-examination. These weaknesses are … not particularly complicated or difficult

to grasp, and thus, are likely to be understood by jurors if addressed on cross-examination." Johnson, 2019 U.S. Dist. LEXIS 39590 at *58. Subjectivity does not act as a bar to admissibility of the field of ballistics and, therefore, should not operate as a bar to the admission of the State's expert in this field.

"The Judiciary must ensure that proceedings are fair to both the accused and the victim. Trial judges partly fulfill that responsibility by serving as a gatekeeper. In that role, they must assess whether expert testimony is sufficiently reliable before it can be presented to a jury" State v. J.L.G., 234 N.J. 265, 307-08 (2018). N.J.R.E. 702, and its three-part test for admissibility of expert testimony, assist trial courts in fulfilling this responsibility. See id. at 280 ("the proponent of expert evidence must establish …: (1) the subject matter of the testimony must be 'beyond the ken of the average juror'; (2) the field of inquiry 'must be at a state of the art such that an expert's testimony could be sufficiently reliable'; and (3) 'the witness must have sufficient expertise to offer' the testimony").

All three requirements are met by ballistics evidence generally, and by the State's expert in particular. All of defendant's varied attacks on the State's ballistics expert attempt to couch what should be fodder for cross-examination in the cloak of inadmissibility. The Court should not take this bait. N.J.R.E 702's "tilt in favor of the admissibility of expert testimony" should be accorded the weight it deserves in light of the decades of unbroken law and science recognizing the admissibility of ballistics testimony. State v. Jenewicz, 193 N.J. 440, 454 (2008). The defendant's motion for the exclusion of the

State's ballistic expert, which presents this Court with nothing "new," should be denied.

Respectfully submitted,

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/s/ Monica do Outeiro

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